Irrigation most obvious response to drought

Water is essential to all life – human, animal and vegetation. It is therefore important that adequate supplies of water be developed to sustain such life. Development of water supplies should, however, be undertaken in such a way as to preserve the hydrological balance and the biological functions of all ecosystems. This is crucial for marginal lands.

Consequently, the human endeavour in the development of water sources must be within the capacity of nature to replenish and to sustain.

As land pressure rises, more and more marginal areas in the world are being used for agriculture. Much of this land is located in the arid or semi-arid belts where rainfall is irregular and much of the precious water is soon lost as surface runoff. Recent droughts have highlighted the risks to human beings and livestock, which occur when rains falter or fail.

While irrigation may be the most obvious response to drought, it has proved costly and can only benefit a fortunate few. There is now increasing interest in the low cost alternative- generally referred to as 'water harvesting'.

Various forms of rainwater harvesting have been used traditionally throughout the centuries. Some of the earliest agriculture, in the Middle East, was based on techniques such as diversion of "Wadi" flow (spate flow from normally dry water courses) onto agricultural fields.

The importance of traditional, small scale systems of rainwater harvesting in sub-Sahara Africa has recently been recognised.

It is on the above background that Tanzanians have been challenged on rainwater harvesting technologies for agricultural production.

It is in the same vein that an expert in irrigation technology has challenged Tanzanians to venture into rainwater-harvesting as one of ways of easing the climate change related impacts.

The expert who works with Arusha-based Green Agriculture firm,

said that time had come for Tanzanian farmers to invest in cost-effective rain technology, which would make them grow crops throughout the year.

According to him his firm had introduced a new rain-water harvesting technology to help farmers in drought hit areas to access water.

He also suggested the need for Tanzania to come up with better technologies that will help people to use little water during the farming season as right now food demands continue to rise while water continues to decline.

Indeed many African countries including Tanzania are already hit by severe water problems for food production as climate change continues to impact many areas. Therefore people will need more and more water for agricultural activities and other domestic uses.

There is therefore need to train farmers on rain water harvesting, farm care and crop management, drip irrigation, soil tests and analysis, farm planning and layout design and sprinkler irrigation system as well.

He however, said that the firm had already introduced a mobile application dubbed; 'Green agriculture Mobile App' after they had discovered that many farmers had lost much produce because of poor agronomic practices as well as lack of education on modern farming techniques.